The Ohio Naturalist,

PUBLISHED BY

The Biological Club of the Ohio State University.

Volume XI. JUNE, 1911. No. 8.

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THE KNOWN POLYPORACEAE OF OHIO.[1]

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The purpose of the present paper is to give a list of the Polyporaceae that have been reported from Ohio. While it is highly probable that some species have been overlooked, yet the list is as complete as could be made from the literature at hand. The floral literature of Ohio is singularly wanting in published lists of our fungi. Perhaps no Basidiomycetes are more difficult to identify than those annual forms of the Polyporaceae which have the white pileus and white context. Even our best mycolygists have trouble in distinguishing them. More than half of the species listed have been collected in the Miami valley by the writer and others connected with the Department of Botany of Miami University.

The nomenclature followed is that of Mr. W. A. Murrill in his monograph of the family. The most generally used synonyms have been added to correlate this paper with other writings on the family. A bibliography of the best American and foreign literature has been appended and an effort has been made to cite as many illustrations as possible. The paper has been prepared with the hope that a number of persons will become sufficiently interested to do collecting in various parts of the state. From such the writer would be glad to receive specimens, and will determine all sent to him for that purpose. Any species not included in this list and those marked as doubtful, are especially wanted for examination.

The writer wishes to express his thanks to all who have aided in the preparation of the paper. Especial thanks are due to the Lloyd Brothers of Cincinnati, for free access to the literature contained in the Lloyd library; to Mr. C. G. Lloyd for his determinations and verifications and for access to his excellent herbarium; to Mr. W. A. Murrill for determinations and verifications and to Dr. Bruce Fink under whose direction the work has been done.

[1] Contributions from the Botanical Laboratory of Miami University. V.

1. **Hydnoporia fuscescens** (Schw.) Murrill, N. Am. Flora 9 : 3. 1907.
Sistotrema fuscescens Schw.
Generally known as Irpex fuscescens Schw. and I. cinnamomeus Fr. This species is wholly resupinate, with a narrow, sterile border. The tubes are at first very short but soon become elongated and irpiciform. The color is a dark yellowish brown. Rather common on dead branches of oak and sugar trees, over the state.

2. **Fuscoporia ferruginosa** (Schrad.) Murrill, N. Am. Flora 9 : 5. 1907.
Boletus ferruginosus Schrad.
Known as Poria ferruginosa (Schrad.) Fr. On dead deciduous wood. Not common.

3. **Fomitiporia obliquiformis** Murrill, N. Am. Flora 9 : 9. 1907.
Collected near Cincinnati on hardwood logs by Morgan and referred to Poria obliquus Pers., a European species. Common.

4. **Fomitiporella inermis** (Ellis & Ev.) Murrill, N. Am. Flora 9 : 13. 1907.
Poria inermis Ellis & Ev.
On deciduous wood. Not common.

5. **Melanoporia nigra** (Berk.) Murrill, N. Am. Flora 9 : 15. 1907.
Polyporus niger Berk.
Characterized by a black hymenium. On oak wood. Probably rare.

6. **Irpiciporus mollis** (Berk. & Curt.) Murrill, Bull. Torr. Club 32 : 471. 1905.
Irpex mollis Berk. & Curt.
Also known as I. crassus Berk. & Curt. On dead deciduous wood. Not common.

7. **Irpiciporus lacteus** (Fr.) Murrill, N. Am. Flora 9 : 15. 1907.
Sistotrema lacteum Fr.
Commonly known as Irpex tulipifera Fr. The most common of all the resupinate forms. It is found on all sorts of dead deciduous branches, frequently with the margin reflexed on both sides.
Illustration: Hard, p. 448, f. 376.

8. **Poronidulus conchifer** (Schw.) Murrill, Bull. Torr. Club 31 : 426. 1904.
Boletus conchifer Schw.
Known as Polyporus conchifer Schw. and as P. virgineus Schw. This species is a very peculiar one. The young plant is a sterile, cup-shaped body about 1 cm. in diameter, varying in color from pure white to dark brown, and marked

with dark concentric rings. The pileus develops from the under side of this cup, which often entirely disappears. The pileus is fan-shaped and generally narrowly attached. The species is easily recognized by the sterile, concentrically zoned, cup shaped structure. Very common on fallen elm branches, from September until winter.

9. **Coriolus versicolor** (L.) Quel. Ench. Fung. 175. 1886.
Boletus versicolor L.

Commonly known as Polyporus versicolor (L.) Fr. The most common and variable of all the Polypori of this region. The writers' specimens include several collections from different localities and no two of them are alike in their combinations of colored zones. It is frequently found encircling small twigs in a spiral manner. It may be found from July until December on all kinds of deciduous wood, in the woods, fields, yards, or along the roadsides. It is frequently found on the lilac and is said to cause a serious disease of that plant. Readily recognized by its thin, coriaceous, multizonate, pileus.

Illustrations: Hard, p. 143, f. 343; Sow. Eng. Fungi, pl. 229

10. **Coriolus hirsutulus** (Schw.) Murrill, Bull. Torr. Club 32 : 643. 1906.
Polyporus hirsutulus Schw.

This plant is closely related to C. versicolor and may be but a variety of that species. On dead deciduous wood. Common.

11. **Coriolus pubescens** (Schum.) Murrill, Bull. Torr. Club 32 : 645. 1906.
Boletus pubescens Schum.

Commonly known as Polyporus pubescens (Schum.) Fr. The entire plant is white or yellowish and the pileus is pubescent but becomes glabrous with age. The hymenium has a silky luster and the walls of the pores are sometimes lacerated. The writer has seen rotten beech logs entirely covered with this fungus. Found from September until winter, on dead wood, especially beech.

Illustration: Hard, p. 410. f. 339.

12. **Coriolus nigromarginatus** (Schw.) Murrill, Bull. Torr. Club 32 : 469. 1906.
Boletus nigromarginatus Schw.

Known as Polyporus hirsutus (Wulf.) Fr. This is a very common species in this region. It is very variable, especially in the character of the pileus. The typical form is rather thick, hirsute, and concentrically zoned, and has a dark colored margin. The hymenium varies in color from

white to brown, but the mouths of the tubes are always regular and have thick dissepiments. Found on all sorts of dead deciduous wood throughout the year.

Illustration: Hard, p. 412, f. 342.

13. **Coriolus biformis** (Klotzsch) Pat. Tax. Hymen. 94. 1900. *Polyporus biformis* Klotzsch.

A very constant species found on logs and stumps from September until winter. The hymenium is at first porous but soon becomes lacerate and irpiciform and dries out to a light bay color. It is frequently found much imbricated and laterally confluent, sometimes for several feet along the log. Common.

Illustration: Hard, p. 412, f. 341.

14. **Coriolus prolificans** (Fr.) Murrill, N. Am. Flora 9 : 27. 1907. *Polyporus prolificans* Fr.

Also known as P. pergamenus Fr. A variable species quite common on sugar maple, elm, wild cherry, and other deciduous wood. The mouths of the tubes are a beautiful purple color when the plant is young, but they fade out to bay or almost white. The hymenuim becomes irpiciform at an early stage. The purple colored hymenium will serve to identify this species. It is found from July until winter.

Illustration: Hard, p. 415, f. 345.

15. **Coriolellus sepium** (Berk.) Murrill, Bull. Torr. Club 32 : 481. 1905.

Trametes sepium Berk.

Common on fence posts, dry rails, pickets, and old structural timber. The single pilei are never more than 1 cm. in length but they are often found laterally confluent and sometimes almost wholly resupinate. The species can be readily distinguished by its size, habitat, and by the pores, which are very large for such a small plant.

16. **Coriolellus serialis** (Fr.) Murrill, N. Am. Flora 9 : 29. 1907. *Polyporus serialis* Fr.

Generally known as Trametes serialis Fr. This species was reported by Morgan, but is probably rare in this state. On deciduous wood.

17. **Tyromyces guttulatus** (Peck) Murrill, N. Am. Flora 9 : 31. 1907.

Polyporus guttulatus Peck.

A doubtful species for Ohio. On coniferous wood.

18. **Tyromyces spraguei** (Berk. & Curt.) Murrill, N. Am. Flora 9 : 33. 1907.

Polyporus spraguei Berk. & Curt.

The writer has collected this species but twice, both collections being taken from beech logs. The whole plant

is white, becoming more or less dingy with age, and is easily identified by its very disagreeable odor. When fresh and growing, the plant is soft and watery, but when dried it becomes exceedingly hard. Found during July and August. Perhaps not common.

19. **Tyromyces caesius** (Schrad.) Murrill, N. Am. Flora 9 : 34. 1907.
Boletus caesius Schrad.
Known as Polyporus caesius (Schrad.) Fr. The pileus is white with a bluish tinge. Probably rare. On dead limbs on the ground.

20. **Tyromyces semipileatus** (Peck) Murrill, N. Am. Flora 9 : 35. 1907.
Polyporus semipileatus Peck.
A doubtful species for Ohio. On deciduous wood.

21. **Tyromyces chioneus** (Fr.) Karst. Rev. Myc. 3^9 : 17. 1881.
Polyporus chioneus Fr.
On deciduous wood. Rare.

22. **Tyromyces lacteus** (Fr.) Murrill, N. Am. Flora 9 : 36. 1907.
Polyporus lacteus Fr.
Probably rare. On beech wood.
Illustration: Fries, Ic. Hymen. pl. 182, f. 1.

23. **Spongipellis unicolor** (Schw.) Murrill, N. Am. Flora 9 : 37. 1907.
Boletus unicolor Schw.
Also known as Polyporus obtusus Berk. Rare. On living maple trees.
Illustrations: Rep. Mo. Bot. Gard. 16: pl. 13-16; Kalchbr. Ic. Hymen. Hung. pl. 34, f. 1.

24. **Spongipellis borealis** (Fr.) Pat. Tax. Hymen. 84. 1900.
Polyporus borealis Fr.
This species is found only on the wood of the spruce tree. Rare in Ohio.

25. **Spongipellis delectans** (Peck) Murrill, N. Am. Flora 9 : 38. 1907.
Polyporus delectans Peck.
On living maple trees. Common.
Illustration: Jour. Cinc. Soc. Nat. Hist. 8 : 99. pl. 1.

26. **Spongipellis galactinus** (Berk.) Pat. Tax. Hymen. 84. 1900.
Polyporus galactinus Berk.
On deciduous wood. Rare.

27. **Bjerkandera adusta** (Willd.) Karst. Medd. Soc. Faun. Fl. Fenn. 5 : 38. 1879.
Boletus adustus Willd.

Known as Polyporus adustus (Willd.) Fr. A very abundant and rather variable species, common on dead deciduous wood, especially of the beech and elm. The pileus is white or pallid and the hymenium is smoke-colored in the young plants, but becomes black in older specimens. It is sometimes found partly resupinate and always much imbricated. From August until winter.

Illustrations: Bull. Herb. Fr. pl. 501, f. 2; Sow. Eng. Fungi pl. 231.

28. **Bjerkandera fumosa** (Pers.) Karst. Medd. Soc. Faun. Fl. Fenn. 5 : 38. 1879.
Boletus fumosus Pers.

Known as Polyporus fumosus (Pers.) Fr. This plant is closely related to the preceding species, but is larger and thicker. The hymenium is lighter in color and the mouths of the tubes are larger and more irregular. On willow and elm. Common.

29. **Bjerkandera puberula** (Berk. & Curt.) Murrill, N. Am. Flora 9 : 41. 1907.
Daedalea puberula Berk. & Curt.

More commonly known as Polyporus puberula Berk. & Curt., and P. fragrans Peck. This plant can be easily recognized by its fragrant odor which persists even after the plant has been dried. The tubes are dark colored; the mouths are large, unequal, and becoming lacerate at maturity. Found most frequently on dead elm wood, from October until December.

30. **Trametes suaveolens** (L.) Fries, Gen. Hymen. 11. 1836.
Boletus suaveolens L.

Also known as T. odora Fr. The willow tree is the only host of this species. Probably rare in Ohio.

Illustrations: Hussey, Ill. Brit. Myc. pl. 43; Sow. Eng. Fungi pl. 228.

31. **Piptoporus suberosus** (L.) Murrill, Jour. Myc. 9 : 94. 1903.
Boletus suberosus L.

Generally known as Polyporus betulinus (Bull.) Fr. Common in the northern part of the state on birch trees.

Illustrations; Bull. Herb. Fr. pl. 312; Sow. Eng. Fungi pl. 212; Hard, p. 408, f. 337.

32. **Porodisculus pendulus** (Schw.) Murrill, N. Am. Flora 9 : 47. 1907.
Peziza pendula Schw.

Also known as Polyporus pocula (Schw.) Berk. & Curt., and as P. cupulaeformis Berk. & Curt. Found on chestnut and sumac bushes. Rare.

33. **Hexagona alveolaris** (DC.) Murrill, Bull. Torr. Club 31 : 327. 1904.
Merulius alveolaris DC.
Also known as Favolus canadensis Klotzsch, and F. europaeus Fr. This is the only species that we have in which the pores radiate outward from the point of attachment of the pileus. The color of the pileus is reddish brown, due to radiating fibrils of that color. The fibrils disappear with age and the pileus becomes pallid and glabrous. The pores are large. The stipe is sometimes well developed, but more often it is short or altogether wanting. When present it is always lateral. The plant is common on dead deciduous wood, especially hickory, and is found from early spring until winter.

34. **Hexagona striatula** (Ellis & Ev.) Murrill, N. Am. Flora 9 : 48. 1907.
Favolus striatulus Ellis & Ev.
Closely resembles H. alveolaris, but distinguished by its smaller pores. On wood of the birch and the beech. Rare.

35. **Polyporus polyporus** (Retz.) Murrill, Bull. Torr. Club 30 : 33. 1904.
Boletus polyporus Retz.
Known as P. brumalis (Pers.) Fr. A common and beautiful species found in the fall, and often persisting far into the winter. The pores are angular, somewhat resembling those of Hexagona, and the pileus is generally umbilicate.
Illustrations: Bull. Herb. Fr. pl. 469; Hard, p. 406, f. 335; Atk. Stud. Amer. Fung. f. 186.

36. **Polyporus arcularius** (Batsch) Fries, Syst. Myc. 1 : 342. 1821.
Boletus arcularius Batsch.
This species is closely related to the preceding one, but the pores are larger and more decurrent and the pileus is less umbilicate. It occurs more abundantly in the spring on all kinds of dead deciduous wood.
Illustrations: Micheli, Nov. Pl. Gen. pl. 70, f. 5; Hard, p. 407, f. 336.

37. **Polyporus caudicinus** (Scop.) Murrill, Jour. Myc. 9 : 89. 1903.
Boletus caudicinus Scop.
The same as Polyporus ulmi Paulet, and also P. squamosus (Huds.) Fr. It is a large wound fungus found on elm and maple trees. Not common.
Illustrations: Schaeff. Fung. Bavar. 3: pls. 101, 102; Sow. Engl. Fungi pl. 266; Bull. Herb. Fr. pls. 19, 114.

38. **Polyporus elegans** (Bull.) Fries, Epic. Myc. 440. 1838.
Boletus elegans Bull.
This plant resembles the next species in color and form, but it is very much smaller and has smaller pores. The stipe is black at the base. Abundant in some parts of the state, on dead deciduous wood.
Illustrations: Bull. Herb. Fr. pl. 124; Pat. Tab. Fung. f. 137.

39. **Polyporus fissus** Berk. Lond. Jour. Bot. 6 : 318. 1847.
This plant has been generally known to American mycologists as P. picipes Fr. It is very common from September until December on dead deciduous wood, especially hickory and elm. It is easily recognized by the reddish brown, leathery, pileus, which is depressed or infundibuliform, and by the stipe, which is black at the base. The pileus sometimes reaches a width of 20 cm. or more, and the stipe is eccentric or lateral.
Illustration: Hard, p. 388, f. 319.

40. **Abortiporus distortus** (Schw.) Murrill, Bull. Torr. Club 31 : 422. 1904.
Boletus distortus Schw.
Known as Polyporus distortus Schw. A very variable species found in the late fall around stumps of deciduous trees, especially of the ash. It is normally stipitate and alutaceous in color, but specimens in the writer's collection named by Mr. Murrill are entirely resupinate and pure white in color. Common.

41. **Scutiger radicatus** (Schw.) Murrill, Bull. Torr. Club 30 : 430. 1903.
Polyporus radicatus Schw.
This species is characterized by having a black, rooting stipe. It grows on the ground and is found from September until December. The stipe is central and the tubes are decurrent. The pileus reaches a width of from 5–9 cm. and the stipe is about 10 cm. long. Not common.
Illustrations: Ohio Myc. Bull. 10: f. 46; Hard, p. 400, f. 329.

42. **Grifola poripes** (Fr.) Murrill, Bull. Torr. Club 31 : 335. 1904.
Polyporus poripes Fr.
Also known as P. flavovirens Berk. & Rav. On the ground in woods. Probably rare.

43. **Grifola sumstinei** Murrill, Bull. Torr. Club 31 : 335. 1904.
This plant was collected by Morgan and referred to P. giganteus (Pers.) Fr., and has been known under that name. According to Mr. Murrill, P. giganteus is a European species to which our plant is closely related. It is not

uncommon to find several large clusters of the plant about the base of a stump, especially beech. It resembles G. frondosa (Dicks.) Gray, but the pileoli are fewer in number and much larger. In the fresh specimens the hymenium turns to black when bruised, and this characteristic will identify the species. Found from July until September.

44. **Grifola frondosa** (Dicks.) Gray, Nat. Arr. Brit. Pl. 1 : 643. 1821.

Boletus frondosus Dicks.

Commonly known as Polyporus frondosus (Dicks.) Fr. Resembles the preceding species in form and habit but easily separated. The pileoli are much narrower and more numerous, and are grayish cinerous in color. The plant generally attains a breadth of 20 or 30 cm. and a height of 20 or more cm. Found at the bases of elm and oak stumps during the late fall.

Illustrations: Sow. Eng. Fungi pl. 87; Atk. Stud. Am. Fungi f. 181, 182; McIlv. Am. Fungi pl. 128; Hard, p. 391, f. 321.

45. **Grifola ramosissima** (Scop.) Murrill, Bull. Torr. Club 31 : 336. 1904.

Boletus ramosissimus Scop.

Generally known as Polyporus umbellatus Fr. Found at the base of oak trees. Reported from the southern part of the state, but probably rare.

Illustrations: Schaeff. Fung. Bavar. pl. 111; Atk. Stud. Am. Fungi f. 178; Hard, p. 390, f. 320.

46. **Grifola berkeleyii** (Fr.) Murrill, Bull. Torr. Club 31 : 337. 1904.

Polyporus berkeleyii Fr.

The same as P. anax Berk. "Nobilissimus inter-omnes mihi cognitos Polyporus," to quote from Fries. A rather common species found around oak or ash stumps in August and September. It has globose, echinulate, spores which will identify it, as no other closely related species has such. Capt. McIlvaine cites an instance of a plant of this species being found near Boston several years ago, which "was fully four feet high and from two to three feet broad."[2]

Illustration: Hard, p. 393, f. 323.

47. **Pycnoporus cinnabarinus** (Jacq.) Karst. Rev. Myc. 3^9 : 18. 1891.

Boletus cinnabarinus Jacq.

Commonly known as Polyporus cinnabarinus (Jacq.) Fr. This species is easily identified by its color, which is a cinna-

[2] One Thousand American Fungi, p. 484.

bar red both on the pileus and on the hymenium, although the pileus fades out with age. The fungus is quite common on dead wood of the wild cherry, sugar, etc. From August until December.

Illustrations: Jacq. Fl. Austr. pl. 304; Bull. Herb. Fr. pl. 501, f. 1; Hard, p. 409, f. 338.

48. **Aurantiporus pilotae** (Schw.) Murrill, Bull. Torr. Club 32 : 487. 1905.
Polyporus pilotae Schw.
A very rare plant in this state and is said to grow on oak and chestnut wood.

49. **Laetiporus speciosus** (Batt.) Murrill, Bull. Torr. Club 31 : 607. 1904.
Agaricus speciosus Batt.
Known as Polyporus sulphurus (Bull.) Fr. Polyporus cincinnatus Morg. is the same plant. Easily recognized by the color of the hymenium, which is a bright sulphur yellow. The pileus varies in color from yellow to reddish orange and specimens in the writer's collection are faded to almost white. It frequently occurs as a parasite and is said to cause much damage to forest trees. It is always found much imbricated and often substipitate. Common from August until November, on stumps and trunks of oak, locust, etc.
Illustrations: Batt. Fung. Hist. pl. 34, f. B; Bull. Herb. Fr. pl. 429; Gibson, pl. 26; Hard, p. 397, f. 326.

50. **Cerrenella farinacea** (Fr.) Murrill, N. Am. Flora 9 : 74. 1907.
Irpex farinaceus Fr.
Ohio is almost out of the range of this species, which is more common farther south. On dead deciduous wood.

51. **Coriolopsis rigida** (Berk. & Mont.) Murrill, N. Am. Flora 9 : 75. 1907.
Trametes rigida Berk. & Mont.
A semi-resupinate form found on dead wood, especially of the sugar-maple. The pileus is never more than 2 cm. in width, and is often entirely wanting. The hymenium is wood-colored. Common.

52. **Funalia stuppea** (Berk.) Murrill. Bull. Torr. Club 32 : 356. 1905.
Trametes stuppeus Berk.
Easily recognized by the very villous pileus, the dark colored hymenium, and the large angular pores, which are about 1 mm. in diameter. Most frequently found on poplar and cottonwood logs, but also on willow. Probably rare, at least in the southern part of the state.

53. **Hapalopilus rutilans** (Pers.) Murrill, Bull. Torr. Club 31: 416. 1904.
Boletus rutilans Pers.
The same as Polyporus nidulans Fr. Not common. On dead deciduous wood.

54. **Hapalopilus gilvus** (Schw.) Murrill, Bull. Torr. Club 31 : 418. 1904.
Boletus gilvus Schw.
Known as Polyporus gilvus Schw. Common on dead deciduous wood, especially beech. In very young specimens the pileus is often covered with a purplish tomentum which disappears with age. The pileus is generally rough and of a tawny color. The hymenium is darker in color than the pileus. The plant is generally found imbricated but is frequently found singly.

55. **Ischnoderma fuliginosum** (Scop.) Murrill, Bull. Torr. Club 31 : 606. 1904.
Boletus fuliginosus Scop.
Known as Polyporus resinous Schrad. A handsome fungus with dark pileus. When young the plant is soft and fleshy and filled with a colored juice. As the plant gets older the pileus becomes harder. The pore surface is pallid and turns immediately to brown when touched. The pores are very minute. Common from October until December on dead deciduous logs.
Illustrations: Fries, Ic. Hymen. pl. 483, f. 2; Hard, p. 403, f. 331.

56. **Antrodia mollis** (Sommerf.) Karst. Medd. Soc. Faun. Fl. Fenn. 5 : 40. 1879.
Daedalea mollis Sommerf.
Known as Trametes mollis (Sommerf.) Fr. and as T. cervinus Pers. A sessile or resupinate form on dead wood. Not common.

57. **Inonotus hirsutus** (Scop.) Murrill, Bull. Torr. Club 31 : 594. 1904.
Boletus hirsutus Scop.
Reported by Morgan as Polyporus endocrocinus Berk. Also known as P. hispidus (Bull.) Fr. On trunks of deciduous trees. Rare in Ohio.
Illustrations: Bull. Herb. Fr. pl. 210; Sow. Eng. Fungi pl. 345.

58. **Inonotus dryophilus** (Berk.) Murrill, Bull. Torr. Club 31: 597. 1904.
Polyporus dryophilus Berk.
Very rare. Always found on oak wood.

59. **Inonotus perplexus** (Peck) Murrill, Bull. Torr. Club 31 : 596. 1904.
Polyporus perplexus Peck.
This species is a very variable one. When fresh and growing it is spongy and tomentose, but becomes quite glabrous with age. The mouths of the pores are grayish brown, becoming darker. A common fungus on dead wood, especially of the beech, from September until December.
Illustration: Hard, p. 401, f. 330.

60. **Inonotus radiatus** (Sow.) Karst. Rev. Myc. 3 : 19. 1881.
Boletus radiatus Sow.
Known as Polyporus radiatus (Sow.) Fr. Found on the alder. Rare.

61. **Coltricia cinnamomea** (Jacq.) Murrill, Bull. Torr. Club 31 : 343. 1904.
Boletus cinnamomeus Jacq.
The same as Polyporus subsericeus Peck and Polystictus cinnamomeus Jacq. The distinguishing characteristic of this species is its thin, shining pileus, bright cinnamon in color and marked by silky striations. It is a small plant, with a slender, central stipe, and usually grows on mossy ground. The pileus is always somewhat depressed at the center, and sometimes very much so. A rare plant as far as the writer's collecting goes, but it is small and easily overlooked.
Illustrations: Atk. Stud. Am. Fungi f. 187; Hard, f. 344; Jacq. Coll. pl. 2; Myc. Notes f. 200.

62. **Coltricia perennis** (L.) Murrill, Jour. Myc. 9 : 91. 1903.
Boletus perennis L.
Known as Polyporus perennis (L.) Fr. Very similar to the preceding species but lacks its shining zones. Probably rare. On ground in woods.
Illustrations: Sow. Eng. Fungi pl. 192; Bull. Herb. Fr. pl. 28.

63. **Coltricia focicola** (Berk. & Curt.) Murrill. N. Am. Flora 9 : 92. 1907.
Polyporus focicola Berk. & Curt.
Known as Polyporus connatus Schw. On ground in woods. Not common.

64. **Coltricia obesa** (Ellis & Ev.) Murrill, Bull. Torr. Club 31 : 346. 1904.
Polystictus obesus Ellis & Ev.
This fungus was collected in the Miami Valley by Lea and referred to P. montagnei Fr. by him. Rare. On ground in woods.

65. **Fomes roseus** (Alb. & Schw.) Cooke, Grevillea 14 : 21. 1885.
Boletus roseus Alb. & Schw.
Known as Fomes carneus Cooke. On dead wood not common.
Illustrations: Nees, Nova Aceta Acad. Leop. Carol. 13: pl. 3; Fries, Ic. Hymen. pl. 186, f. 1.

66. **Fomes fraxineus** (Bull.) Cooke, Grevillea 14 : 21. 1885.
Boletus fraxineus Bull.
A rare species for this country, although a few good collections have been made, all of which are annual. Generally found on ash trees.
Illustration: Bull. Herb. Fr. 10: pl. 433, f. 2.

67. **Fomes ohiensis** (Berk.) Murrill, Bull. Torr. Club 30 : 230. 1903.
Trametes ohiensis Berk.
This little fungus (very small for the genus Fomes) is found abundantly on fence posts, rails, pickets, dead spots on certain deciduous trees, and on old structural timber. The pileus becomes black only at the base, and the tubes are longer than in F. scutellatus (Schw.) Cooke with which it is often confused. The hymenium is white and the walls of the tubes are almost as thick as the diameter of the mouths.

68. **Fomes scutellatus** (Schw.) Cooke, Grevillea 14 : 19. 1885.
Polyporus scutellatus Schw.
Rare, growing only on the alder in this state.

69. **Fomes fraxinophilus** (Peck) Sacc. Syll. Fung. 6 : 172. 1888.
Polyporus fraxinophilus Peck.
This species is found on species of Fraxinus and is a wound parasite. It grows to be very large, specimens having been brought in which were 30 cm. across. It is perennial and most commonly grows from 30 to 40 feet above the ground. The pileus is at first white but becomes black and rimose with age. Common.
Illustrations: Bull. U. S. Dept. Agr. Pl. Ind. 32: pl. 2. 1903; Hard, p. 421, f. 350.

70. **Fomes populinus** (Schum.) Cooke, Grevillea 14 : 20. 1885.
Boletus populinus Schum.
Known as F. connatus Gill. Always found at the bases of sugar trees, between the roots, and generally covered with moss. Common.
Illustrations: Fries, Ic. Hymen. pl. 185, f. 2; Gill. Champ. Fr. pl. 466.

71. **Pyropolyporus igniarius** (L.) Murrill, Bull. Torr. Club 30 : 110. 1903.
Boletus igniarius L.
Fomes nigricans Fr. is the same plant. A large perennial fungus with a woody pileus which becomes black and rimose with age. Occurring on deciduous trees, but not common.
Illustration: Gill. Champ. Fr. pl. 290.

72. **Pyropolyporus fulvus** (Scop.) Murrill, Bull. Torr. Club 30 : 112. 1903.
Boletus fulvus Scop.
Listed by Morgan as P. supinus Fr. Also known as Fomes fulvus (Scop.) Gill. and F. pomaceus Pers. Found only on plum trees. Frequent.

73. **Pyropolyporus everhartii** (Ellis & Gall.) Murrill, Bull. Torr. Club 30 : 114.
Mucronoporus everhartii Ellis & Gall.
Known as Fomes everhartii Ellis & Gall. Generally found on oak wood. Not common.
Illustration: Jour. Myc. 5: pl. 12. 1889.

74. **Pyropolyporus robiniae** Murrill, Bull. Torr. Club 30 : 114. 1903.
Generally known to American mycologists as Fomes rimosus Berk. A wound parasite found only on living trunks of Robinia pseudacacia. It is quite a large fungus, and the pileus becomes black and rimose with age. The hymenium is tawny. Common.
Illustrations: Rep. Mo. Bot. Gard. 12: pl. 1–3; Hard, p. 418, f. 347.

75. **Pyropolyporus conchatus** (Pers.) Murrill, Bull. Torr. Club 30 : 117. 1903.
Boletus conchatus Pers.
Commonly known as Fomes conchatus (Pers.) Fr. This species is a very variable one, generally found wholly resupinate on the under side of dead deciduous logs, especially the oak. It is perennial and the hymenium is a dark chestnut brown. In the pileate forms the pileus is concentrically zoned and black. Common.
Illustration: Fries, Ic. Hymen. pl. 185, f. 2.

76. **Porodaedalea pini** (Thore) Murrill, Bull. Torr. Club 32 : 367. 1905.
Boletus pini Thore.
Commonly known as Trametes pini Fr. A parasitic, perennial fungus, easily identified by the black, ungulate surface and yellowish brown hymenium, with more or less labyrinthiform pores.

77. **Globifomes graveolens** (Schw.) Murrill, Bull. Torr. Club 31 : 424. 1904.
Boletus graveolens Schw.
Known as Polyporus conglobatus Berk. and Fomes graveolens (Schw.) Cooke. A very peculiar fungus, forming an imbricated, cylindrical mass of overlapping pileoli. Generally found on beech logs. The color while growing is a rusty brown, but the old plants become black. Found in September and October. Not common. Commonly called "sweet knot" on account of its fragrant odor. The writer's specimens were collected in a growing condition, but no odor was noticeable.
Illustrations: Ohio Myc. Bull. 9: f. 41; Hard, p. 405, f. 334.

78. **Elfvingia fomentaria** (L.) Murrill, Bull. Torr. Club 30 : 298. 1903.
Boletus fomentarius L.
Commonly known as Fomes fomentarius (L.) Fr. On beech and birch. Rare.
Illustrations: Gill. Champ. Fr. pl. 467; Sow. Eng. Fungi pl. 133.

79. **Elfvingia lobata** (Schw.) Murrill, Bull. Torr. Club 30 : 299. 1903.
Fomes lobatus Schw.
Known as Fomes reniformis Morg. An annual fungus, which, however, frequently revives, but the second year's growth comes out below that of the previous year. This point distinguishes it from the next species, which it resembles. Rather common about the bases of old stumps.

80. **Elfvingia megaloma** (Lev.) Murrill, Bull. Torr. Club 30 : 300. 1903.
Polyporus megaloma Lev.
Known as Fomes leucophaeus Mont. and incorrectly called Polyporus applanatus Pers. It is perennial and in point of size is perhaps the largest of all that are found in the state. A specimen collected at Oxford, Ohio, in June of 1909 measures 50x30x30 cm. It frequently grows imbricated, but more often it is found single. Very common throughout the year on all kinds of dead deciduous logs and stumps, and frequently on living trees. It is generally found near the ground, but the writer has seen specimens on a living sugar tree, 40 feet above the ground. At certain seasons of the year the pileus is covered with the brown conidia which are produced on the upper surface. When fresh, the hymenium turns brown when rubbed.

81. **Ganoderma curtisii** (B.) Murrill, Bull. Torr. Club 29 : 602. 1902.
Polyporus curtisii Berk.
Closely related to the next species, but probably rare in this state. Said to grow on ash and maple wood.

82. **Ganoderma sessile** Murrill, Bull. Torr. Club 29 : 604. 1902.
This species has always been known to American collectors as Polyporus lucidus (Leys) Fr. Collectors should have no trouble in identifying it, as it is the only species with a varnished pileus that is at all common here. It occurs both with and without a stipe, but when the stipe is present it is always lateral. Common at the bases of stumps of different deciduous trees.
Illustrations: Atk. Stud. Am. Fung. p. 192, pl. 72; Hard. p. 404, f. 332.

83. **Cerrena unicolor** (Bull.) Murrill, Jour. Myc. 9 : 91. 1903.
Boletus unicolor Bull.
Known as Daedalea unicolor (Bull.) Fr. The collector who finds this plant for the first time is very likely to decide immediately that it belongs to the genus Coriolus, as the thin, leathery, pileus and irpiciform hymenium would indicate. But the hymenium is at first plainly labyrinthiform, and only becomes irpiciform with age. The hymenium is at first white but later takes on a darker color. The pileus is densely strigose-villous, multi-zonate, and frequently covered with a green alga. Common on all kinds of dead deciduous wood. The writer frequently finds specimens which have continued their growth the second year from the margin of the first year's growth.
Illustrations: Bull. Herb. Fr. pl. 408, 501; Bolt. Hist. Fung. app. pl. 16; Sow. Eng. Fungi pl. 325.

84. **Daedalea quercina** (L.) Pers. Syn. 500. 1801.
Agaricus quercinus L.
On dead oak wood. Said to be common in some parts of the state.
Illustrations: Sow. Eng. Fungi pl. 181.; Bull. Herb. Fr. pl. 352; Hard, p. 428, f. 357.

85. **Daedalea confragosa** (Bolt.) Pers. Syn. 500. 1801.
Boletus confragosus Bolt.
Trametes rubescens Fr. is a thin form of this plant. It is the only species of the genus that is at all common here. Various conditions of the hymenium are found, grading from strictly poroid to labyrinthiform and lamellate, sometimes all stages being found in one plant. The hymenium changes from white to reddish brown when touched. Found from August until December, on dead willow wood.
Illustrations: Bolt. Halifax Fung. Suppl. pl. 160; Alb. & Schw. Consp. Fung. pl. 11, f. 2; Hard, p. 429, f. 358.

86. **Daedalea aesculi** (Schum.) Murrill, Bull. Torr. Club 32 : 89. 1905.
Boletus aesculi Schum.
Commonly known as D. ambigua Berk. Very common in some parts of the state. The whole plant is pure white. On dead deciduous wood.
Illustration: Hard, p. 427, f. 355–356.

87. **Lenzites betulina** (L.) Fries, Epicr. Myc. 405. 1838.
Agaricus betulinus L.
Because of its lamellate hymenium, this plant is often given under the white spored Agarics. It is very common on dead deciduous wood. The lamella are thick and often anastamose. The pileus is multi-zonate and variously colored. May be found at any time of the year, on all kinds of deciduous wood.
Illustrations: Sow. Eng. Fungi pl. 182; Hard, p. 230, 231, f. 184, 185.

88. **Gloeophyllum trabeum** (Pers.) Murrill, Bull. Torr. Club 31 : 605. 1904.
Agaricus trabeus Pers.
Known as Lenzites vialis Peck. A common species over the state, occurring on dead wood.
Illustration: Sow. Eng. Fungi pl. 182.

89. **Gloeophyllum hirsutum** (Schaeff.) Murrill, Jour. Myc. 9 : 94. 1903.
Agaricus hirsutus Schaeff.
Same as Lenzites saeparia Fr. Found only on pine wood. Not common.
Illustration: Sow. Eng. Fungi pl. 418.

90. **Cycloporus greenei** (Berk.) Murrill, Bull. Torr. Club 31: 423. 1904.
Cyclomyces greenei Berk.
A curious fungus with the pores arranged in concentric circles. Grows on the ground. Rare.
Illustrations: Lond. Jour. Bot. 4: pl. 11; Hard, p. 430, 431, f. 360, 361.

Besides the above species, there are a few which have not been provided for in Mr. Murrill's classification. His work on the species with the gelatinous hymenium and on the Porias which have a white hymenophore, has not yet been published. The following is a list of those recorded from Ohio:

91. **Fistulina hepatica** Fr. Not common.
92. **Fistulina pallida** Berk. & Rav. Rare. On chestnut and oak wood.
93. **Polyporus rhipidium** Berk. Not common.

94. **Polyporus dichrous** Fr. Common. Has a reddish purple hymenium.
95. **Poria purpurea** Fr. Not common.
96. **Poria attenuatus** Peck. Not common.
97. **Poria rufa** Schrad. Rare.
98. **Poria xantholoma** Schw. Perhaps common.
99. **Poria contiguus** (Pers.) Fr. Common.
100. **Poria unita** Pers.
101. **Poria bombycina** Fr.
102. **Poria cinerea** Schw.
103. **Poria vulgaris** Fr. The same as P. pulchella Schw.
104. **Poria obducens** Pers.
105. **Poria mollusens** Fr.
106. **Poria viridans** Berk. & Br.
107. **Poria gordoniensis** Berk. & Br.
108. **Poria vaporarius** Fr.
109. **Poria tenuis** Schw.
110. **Poria callosa** Fr.
111. **Poria spissus** Schw.
112. **Merulius tremellosus** Schrad. Common.
113. **Merulius rubellus** Peck. Common.
114. **Merulius himantioides** Fr.
115. **Merulius corium** Fr.
116. **Merulius molluscus** Fr.
117. **Merulius porinoides** Fr.
118. **Merulius lachrymans** Fr.

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